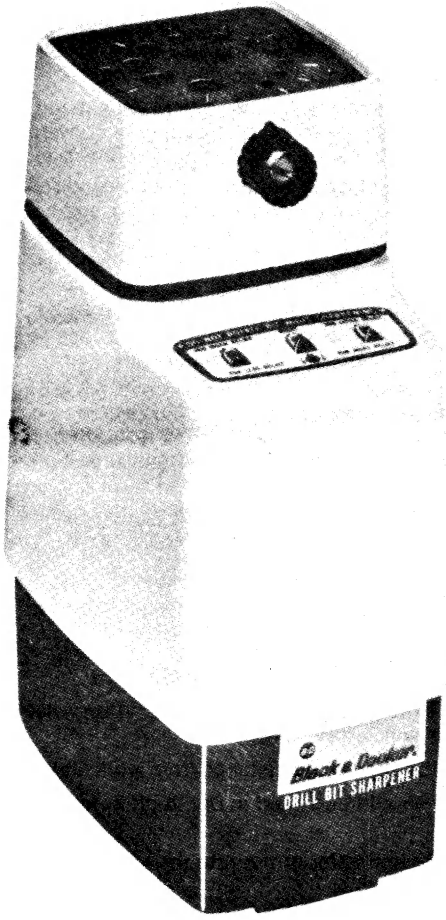
Black & Decker*

OWNER'S MANUAL



Your Black & Decker Drill Bit Sharpener will save you time and money by extending the useful life of your bits. **You can buy high quality bits and keep them much longer.** With a little practice, you will be able to quickly sharpen your drill bits to the proper shape and angle, which will help you to make holes of the right size and roundness, located where you want them. You can drill holes faster, using less power.
Note: Do not attempt to sharpen Carbide-Tipped Bits with this tool.

BECAUSE THIS PRODUCT REQUIRES THE DEVELOPMENT OF OPERATOR TECHNIQUE, IT IS IMPORTANT THAT YOU CAREFULLY READ AND FOLLOW THE INSTRUCTIONS IN THIS MANUAL.

THANK YOU for buying BLACK & DECKER

DOUBLE INSULATED DRILL BIT SHARPENER

for 1/8" to 3/8" Twist Drill Bits

*Black & Decker**DRILL BIT SHARPENER

Safety Features and Instructions

1. The full length cover of the sharpener head is designed to protect you in case a drill bit breaks or foreign matter jams the machine.

2. If the wheel becomes jammed, or if the wheel or a bit breaks, immediately release the ON-OFF switch. UNPLUG TOOL! Follow the instructions for disassembling the sharpening head (page 6) to inspect the grinding wheel for damage, or for any other cause of jamming.

3. Your tool is DOUBLE-INSULATED to give you added safety. This means that it is constructed throughout with TWO separate "layers" of electrical insulation or one DOUBLE thickness of insulation between you and the tool's electrical system.

Tools built with this insulation system are not intended to be grounded. As a result, your tool is equipped with a two-prong plug which permits you to use any conventional 120 volt electrical outlet without concern for maintaining a ground connection.

NOTE: DOUBLE-INSULATION does not take the place of normal safety precautions when operating this tool. The insulation system is for added protection against injury resulting from a possible electrical insulation failure within the tool. CAUTION: When servicing Double-Insulated Tools, USE ONLY IDENTICAL REPLACEMENT PARTS. Replace or repair damaged cord.

4. DO NOT flow water or any other cooling fluid on drill bit or grinding wheel while grinding.

5. Normal sharpening causes the bit to become hot. Take care not to touch the bit tip immediately after sharpening it.

6. Sharpener head may become quite warm after extended use. This condition is normal and should not cause concern, other than to take care in handling the unit.

Safety Rules for Power Tools

1. **Keep Work Area Clean.** Cluttered areas and benches invite accidents.

2. **Avoid Dangerous Environment.** Don't expose power tools to rain. Don't use power tools in damp or wet locations. Keep work area well lit.

3. **Keep Children Away.** All visitors should be kept a safe distance from work area.

4. **Store Idle Tools.** When not in use, tools should be stored in dry, high or locked-up place—out of reach of children.

5. **Don't Force Tool.** It will do the job better and safer at the rate for which it was designed.

6. **Use Right Tool.** Don't force small tool or attachment to do the job of a heavy duty tool.

7. **Wear Proper Apparel.** No loose clothing or jewelry to get caught in moving parts. Rubber-soled footwear is recommended for best footing.

8. **Use Safety Glasses** with most tools. Also face or dust mask if cutting operation is dusty.

9. **Don't Abuse Cord.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil and sharp edges.

10. **Don't Overreach.** Keep proper footing and balance at all times.

11. Disconnect Tools before servicing; when changing accessories such as blades, bits, cutters, etc.

12. Avoid Accidental Starting. Don't carry plugged-in tool with finger on switch. Be sure switch is off when plugging in.

13. Outdoor Use Extension Cords—When tool is used outdoors, use only extension cords suitable for use outdoors and so marked.

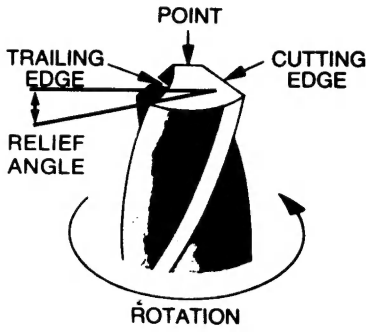
14. Do Not Operate portable electric tools in gaseous or explosive atmospheres. Motors in these tools normally spark, and the sparks might ignite fumes.

Sharpening Drill Bits — General

A properly sharpened bit has:

1. Its point in the centre of the bit.
2. Two sharp cutting edges.
3. Two trailing edges that are slightly lower (as at right) than the cutting edges. If the trailing edge is higher than the cutting edge, the cutting edge cannot contact the work and the bit will not cut. If they are the same height as the cutting edges, they will "drag," slow down the cutting and cause the bit to overheat.

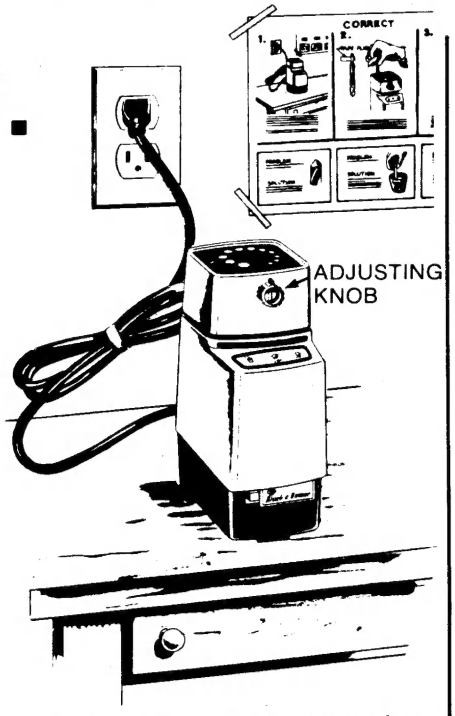
Drill Bit Sharpening requires close attention to operating procedure, and frequent examination of the results being obtained. Please follow the step by step operating instructions in this manual.



CORRECT SHARPENING PROCEDURE

(wear eye protection)

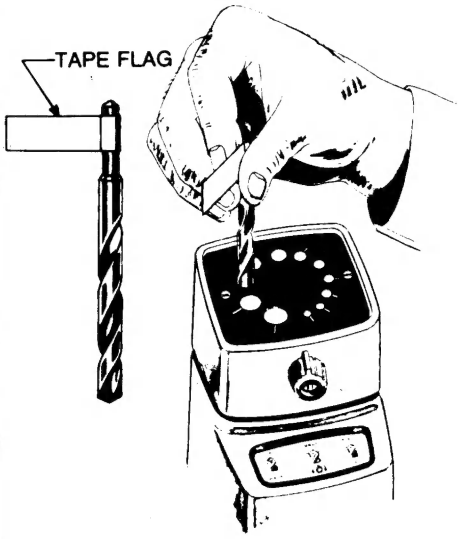
1.



Place Sharpener on a flat, horizontal surface. Set Adjusting Knob in vertical (12 o'clock) position. Plug in Sharpener.

Note: Always keep this manual handy for reviewing operating steps when needed. Or, better still, tape this entire sharpening procedure to the wall behind your Sharpener.

2.



Attach a piece of tape to the drill bit as shown to form a flag.

Insert bit into the smallest hole that it will fit into.

PROBLEM:

The cutting edge of the bit is rounded or uneven.

SOLUTION:

Always lean bit toward index marks and do not move the bit while the wheel is turning (See Step 3).

PROBLEM:

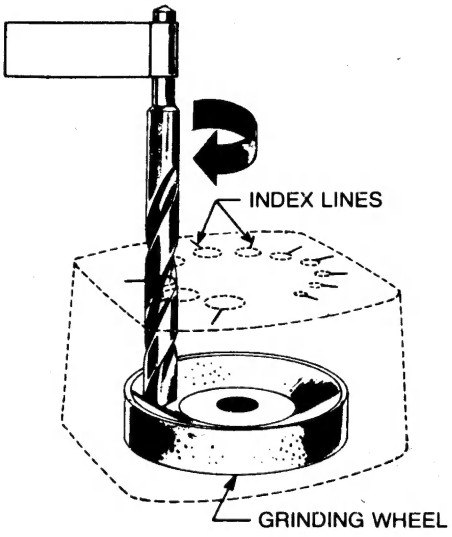
Bit tip is turning blue, which means it is overheating.

SOLUTION:

1. Reduce pressure on bit while sharpening, and/or
2. Reduce the time that the ON-OFF switch is depressed.
3. Cool the bit in water.

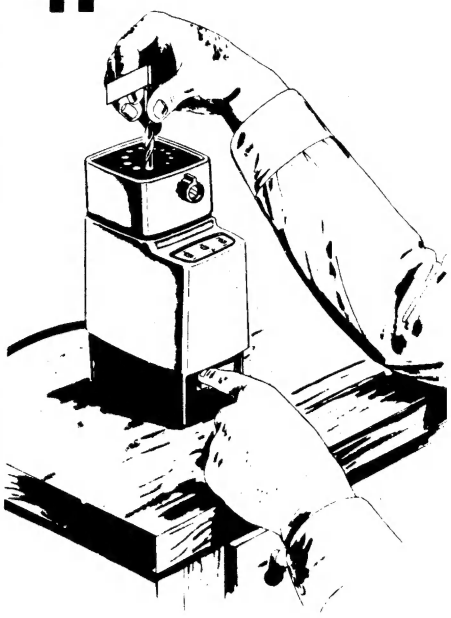
CORRECT SHARPENING PROCEDURE
(wear eye protection)

3.



Push bit downward and rotate it clockwise until it stops. Lean bit toward index line at the outside edge of the hole. This is the proper sharpening position. **Do not rotate bit while sharpening.**

4.



To sharpen, exert a slight downward pressure on the bit while depressing the ON-OFF switch. Hold the switch down for from 1 to 2 seconds for small bits, from 3 to 4 seconds for larger bits. **Do not remove bit until wheel has stopped turning.**

PROBLEM:
Too much time is required to sharpen broken bits.

SOLUTION:
Use a bench grinder to rough the bit into shape.

PROBLEM:
Drill Point is not centered.

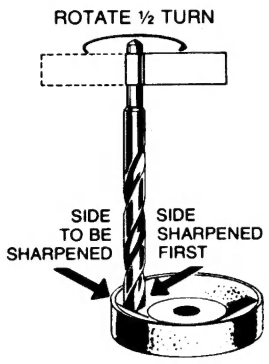
SOLUTION:
Grind longer on shortest side of bit tip. The shortest side of the tip should be positioned so that it is on the outer edge of the grinding wheel as shown in Step 3.

CORRECT SHARPENING PROCEDURE

(wear eye protection)

5.

Note the position of the tape flag. Lift the bit about ½", rotate it ½ turn using the flag as an indicator. The flag should then be in the opposite position or 180° from its original position. Reinsert the bit in the sharpener, pushing it downward and rotating it clockwise until it stops. Follow steps 3 and 4 to sharpen the other side of the bit tip.



6. INSPECT THE BIT TIP

Does it have a blue tint? If so, this indicates excess heat which can soften the cutting edge.

To remedy:

(a) Reduce pressure on the bit when sharpening, and/or

(b) Reduce the time the ON-OFF switch is depressed.

(c) Cool bit tip in water after each sharpening operation.

Is the point centered? If not, more metal has been removed from one side of the tip than the other, because:

(a) Pressure on the bit was not the same when sharpening each side of the bit, and/or

(b) The ON-OFF switch was not depressed an equal length of time when sharpening each side of the bit.

To center the point, the shortest side of the tip should be positioned so that it is on the outer edge of the grinding wheel per the illustration above, and that side of tip ground until the point is centered.

PROBLEM:

Drill bit is uncomfortable to handle.

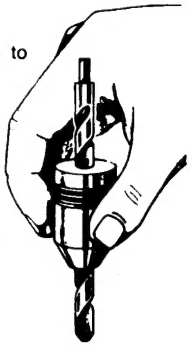
SOLUTION:

Place Drill Stop on bit and use it as a fingerhold.

Cat. No. U1577 Drill Stop for 1/16" to ¼" bits.

Cat. No. U1578 Drill Stop for ¼" to ½" bits.

Note: Drill Stop finger-tightens at any position on bit and can be used when drilling holes to control hole depth.



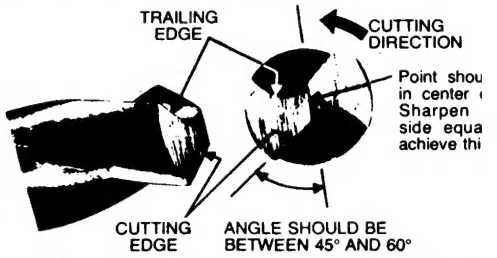
7.

Reinsert bit and repeat sharpening cycle — steps 2 through 5. Many repitions of the sharpening cycle may be required to sharpen larger bits. Small bits require fewer repetitions. Examine bit frequently to be sure it is not overheating.

As your bit starts to shape up, compare its tip with the RIGHT and WRONG figures (see below). If your bit is starting to look like one of the WRONG figures, turn the Adjusting Knob ⅛" in the direction indicated in the applicable figure. Make at least 3 more sharpening cycles and examine tip to see that you are grinding toward the point and cutting edge angle indicated in the RIGHT figure. If not, turn knob another ⅛" and continue sharpening. Repeat this procedure if necessary, until you are grinding at the angle indicated in the RIGHT figure. Then finish sharpening the bit.

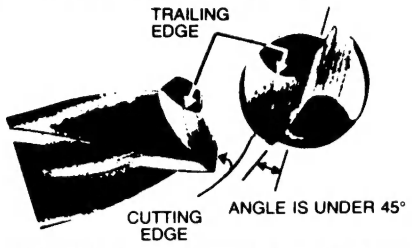
RIGHT

Cutting edge slightly above trailing edge.



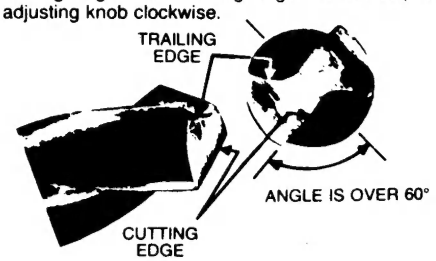
WRONG

Cutting edge too far above trailing edge. To correct, turn adjusting knob counter-clockwise.



WRONG

Cutting edge below trailing edge. To correct, turn adjusting knob clockwise.



Changing Grinding Wheel

If sharpened bit shows signs of surface unevenness (grooves or ridges), or a proper cutting angle cannot be ground, the grinding wheel should be replaced.

DISASSEMBLY

1. Unplug the unit from the electrical outlet.
2. Remove two screws, No. 1 (See Figure 4).
3. Remove index plate (No. 2).
4. Hold spindle (No. 14) with a screwdriver use a 9/16" wrench to remove nut (No. 3). Then lift off washer (No. 4).
5. Remove two screws (No. 5) and lift off head (No. 7).
6. Remove spacer (No. 8), felt washer (No. 9), flanged washer (No. 10) and grinding wheel (No. 11).
7. The spindle hole (No. 6) and spindle (No. 14) should be wiped clean of all grinding grit. Any grit accumulation should be removed from the underside of the head and especially the spindle hole.
8. At this time, examine grinding wheel for cracks and make sure paper blotters (No. 12) on both sides of wheel are in place. (Blotters on a grinding wheel are necessary to prevent cracking the wheel when it is tightened on the spindle). If the surface has a shiny streak in it where it contacts the bit it should be replaced. This can be caused by too much downward pressure on the bit while sharpening. **BE SURE to replace a grinding wheel that is worn or damaged.**

ASSEMBLY

NOTE: When replacing parts make certain they are positioned as shown in Figure 4.

1. Be sure that washer (No. 13) is on spindle (No. 14) and that rubber gasket (No. 15) is fitted evenly around the four posts.
2. Put grinding wheel (No. 11) on spindle with recessed side to the top. This is the wheel surface that does the sharpening.
3. Replace flanged washer (No. 10), felt washer (No. 9) and spacer (No. 8) as shown in Figure 4.
4. Replace head (No. 7) on motor housing and replace two screws (No. 5). Add two drops of machine oil around edge of spindle hole (No. 6).
5. Replace parts 1, 2, 3 and 4 in order shown. Match holes in index plate (No. 2) with holes in head (No. 7) before screwing plate down.

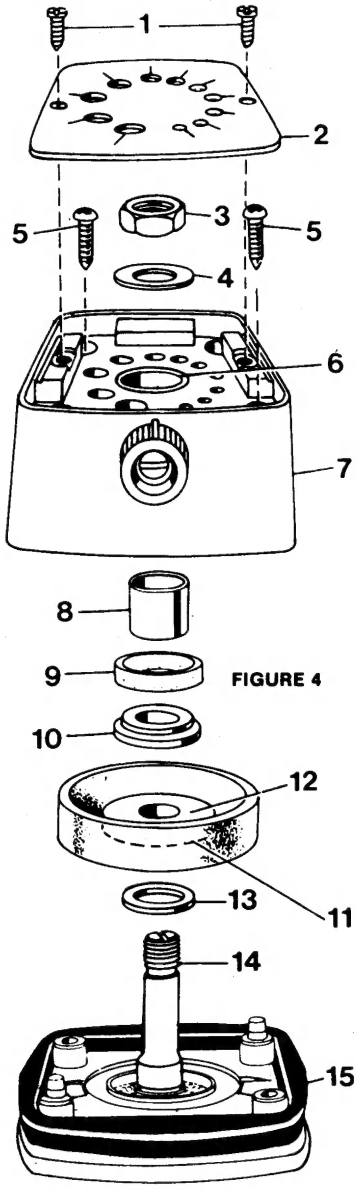


FIGURE 4

Repairs and Maintenance

No maintenance is normally required other than grinding wheel replacement. A worn or damaged wheel should be replaced immediately. Replacement wheels (Cat. No. 79-520) are available at any Black & Decker Service Centre or write to Brockville, Ontario.
CAUTION: The use of any other wheel might be hazardous.

CLEANING AND LUBRICATING

Use only mild soap and a damp cloth to clean the tool. Many household cleaners contain chemicals (frequently being changed) which could seriously damage the plastic. Also, do not use gasoline, turpentine, lacquer or paint thinner, dry cleaning fluids or similar products. Never let any liquid get inside the tool; never immerse any part of the tool into a liquid.

Self lubricating bearings are used in the tool and periodic relubrication is not required. However, it is recommended that, once a year, you take or send the tool to a B & D Service Centre for a thorough cleaning and inspection.

RAPID EXCHANGE HOME USE WARRANTY

BLACK & DECKER WARRANTS THIS PRODUCT FOR ONE YEAR AGAINST DEFECT IN MATERIAL AND WORKMANSHIP IN NORMAL RESIDENTIAL USE. THIS WARRANTY DOES NOT COVER DAMAGE RESULTING FROM NEGLIGENT HANDLING, MISUSE OR LACK OF REASONABLE CARE. PLEASE RETURN THE COMPLETE UNIT, TRANSPORTATION PREPAID, TO THE SELLER FOR FREE REPLACEMENT IF THE SELLER IS A PARTICIPATING RETAILER IN THE BLACK & DECKER RAPID EXCHANGE PROGRAM. (PROOF OF PURCHASE MAY BE REQUIRED BY THE SELLER.) THE UNIT MAY ALSO BE RETURNED TO A BLACK & DECKER SERVICE CENTRE OR AUTHORIZED SERVICE STATION FOR FREE REPLACEMENT OR REPAIR AT OUR OPTION. THIS WARRANTY DOES NOT APPLY TO ACCESSORIES.

IN RETURNING THE TOOL FOR REPLACEMENT, ALL ORIGINAL STANDARD EQUIPMENT MUST ALSO BE RETURNED (FOR EXAMPLE, CHUCK, CHUCK KEY, AUXILIARY HANDLES, CIRCULAR SAW BLADES). EXPENDABLE ORIGINAL EQUIPMENT SUCH AS SANDING SHEETS, BELTS AND DISCS AND JIG SAW BLADES NEED NOT BE RETURNED. FOR KITS AND ASSORTMENTS ONLY THE BASIC POWER TOOL WILL BE REPLACED.

THE SOLE REMEDY FOR BREACH OF THIS WARRANTY AND THE SOLE OBLIGATION OF BLACK & DECKER HEREUNDER IS THE REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT AT BLACK & DECKER'S OPTION. BLACK & DECKER SHALL HAVE NO LIABILITY WHATSOEVER AT ANY TIME FOR ANY PERSONAL INJURY OR PROPERTY DAMAGES OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY KIND HOWSOEVER ARISING.

THIS WARRANTY IS STRICTLY LIMITED TO ITS TERMS AND IS IN LIEU OF ANY KIND AND ALL OTHER WARRANTIES AND CONDITIONS, WRITTEN OR ORAL, WHETHER EXPRESS OR IMPLIED.

Note: THIS WARRANTY AND RELATED PROVISIONS SET OUT ABOVE MAY NOT BE APPLICABLE IN CERTAIN PROVINCES.

BLACK & DECKER SALES AND SERVICE CENTRES

HALIFAX, N.S.	3695 Barrington St., Barrington Comm. Ctr., B3K 2Y3
QUEBEC, P.Q.	2675 rue Dalton, Parc Colbert, Ste-Foy G1E 6A8
MONTREAL, QUE.	7865 St. Lawrence Blvd., H2R 1X1
LONGUEUIL, QUE.	1568 Chemin de Chambly, J4J 3X5
LAVAL, QUE.	1930 St. Martin Blvd., H7S 1M9
POINTE CLAIRE, QUE.	3669 St. John's Rd., H9G 1X2
OTTAWA, ONT.	285 Richmond Road, K1Z 6X3
BROCKVILLE, ONT.	Central Avenue, K6V 4N8
SCARBOROUGH, ONT.	729 Kennedy Rd., M1K 2C6
DOWNSVIEW, ONT.	592 Champagne Drive, M3J 2T9
TORONTO, ONT.	1180 The Queensway, M8Z 1R5
HAMILTON, ONT.	180 Parkdale Avenue N., L8H 5X2
KITCHENER, ONT.	671 Belmont Ave. W., N2M 1N8
LONDON, ONT.	631 Commissioners Rd. E., N6C 2V1
WINDSOR, ONT.	3707 Walker Rd., N8W 3S9
SUDBURY, ONT.	1496 Fairburn Avenue, P3A 1N7
WINNIPEG, ST. JAMES, MAN.	934 St. James Street, R3H 0K3
REGINA, SASK.	1076 Albert Street, S4R 2P8
SASKATOON, SASK.	No. 4 - 1622 Ontario Avenue, S7K 1S8
CALGARY, ALTA.	1003, 11th Avenue S.W., T2P 0G2
EDMONTON, ALTA.	11440 Avenue 142nd Street, T5M 1V1
VANCOUVER, B.C.	24 West Second Avenue, V5Y 1B5
NEW WESTMINSTER, B.C.	301 Columbia Avenue, V3L 1A7

Black & Decker Canada Inc. Brockville, Ontario
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